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NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

**THE MILITARY HOUSING PROBLEM: PUBLIC
PRIVATE VENTURE (PPV) AND COMPLETE
PRIVATIZATION ALTERNATIVES**

by

Steven R. Sorce

June 2000

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PRIVATE VENTURE (PPV) AND COMPLETE
PRIVATIZATION ALTERNATIVES**

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Lieutenant, United States Navy
B.A., Holy Cross, 1993

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

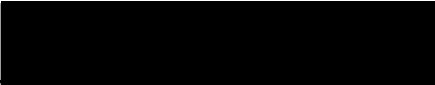
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ABSTRACT

This thesis examines the current problems facing military housing, mainly inadequate quantity and quality to meet current demand. The Secretary of Defense testified before Congress that meeting today's military housing requirements would necessitate 30-40 years of effort at a cost of approximately \$20B, if funded under the traditional Military Construction (MILCON) appropriation. This study considers the following alternatives for solving the housing problem: the current approach of MILCON; Public Private Venture (PPV); and complete privatization. Results indicate that MILCON is slow and underfunded and will not efficiently solve the housing problem. Public Private Venture may be a more efficient alternative but is also slow based primarily on legal difficulties. Complete privatization is clearly the best alternative, but this option must also overcome primarily political resistance to the traditional MILCON process. Complete privatization appears to be cheaper, more aligned with the private sector housing market, and would probably increase the Quality of Life (QoL) of all service members.

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I. INTRODUCTION

A. BACKGROUND

Congressional testimony by the Secretary of Defense indicates that 200,000 military family housing units are old and poorly maintained, and need to be renovated or replaced. Using traditional Military Construction (MILCON) funding, the Department of Defense (DoD) estimates that it will cost \$20 billion to repair or replace current military housing. Furthermore, it is estimated that it will take 30-40 years to complete the task (GAO, NSIAD-98-178, 1998).

This thesis examines the military housing problem, particularly that of the U.S. Navy, and analyzes the advantages and disadvantages of various alternatives to minimize or solve the problem. MILCON, the Public Private Venture (PPV) and complete privatization of military housing are considered as alternatives. Conclusions are drawn as to the best alternative for solving the quantity, quality and Quality of Life (QoL) aspects of this important long-term issue.

The Navy maintains ownership of approximately 60,000 of DoD's housing units. Approximately 75 percent of military members live in non-government owned housing, yet fleet concentration areas typically have long waiting lists for sailors wishing to occupy government quarters. The current waiting list for San Diego, for example, is 18 months for some of the more desirable area housing units (Commander, Navy Region Southwest, 1999).

Congress is seeking alternatives to the traditional processes of construction and modernization through MILCON. In 1996, Congress authorized a series of five-year, test pilot initiatives including: providing direct loans and loan guarantees, the leasing of

housing units, Differential Lease Payments (DLP), and the conveyance or leasing of existing property and facilities. These nontraditional alternatives are relying on the efficiencies inherent in the private sector housing market to help solve the housing problem in 10 years vice the projected 30-40 year timeframe using traditional MILCON procedures.

Two prominent alternatives have also emerged as the most viable methods for solving the housing problem in a more timely manner: the Public Private Venture (PPV), and the complete privatization of all military housing (CNA, CRM 97-25, April 1997). This study examines the advantages and disadvantages of both of the major alternatives.

B. THE PUBLIC PRIVATE VENTURE (PPV)

The PPV is essentially a partnership with private sector contractors. Through complete private sector financing (the most ideal scenario) or government loan guarantees, contractors are encouraged to construct, renovate and maintain military housing stocks. This either takes place on privately obtained and held real estate or government leased, existing housing land. The government usually incorporates "right of first refusal" to military members in PPV communities. This preserves its ability to fill occupancies with military members vice private sector occupants but involves occupancy guarantee rates. Also incorporated are rental rate guarantees, which place rent ceilings on the units. These guarantees, incorporated into the construction contracts, ensure that military members (who pay the rent themselves out of housing allowances) are not subjected to sky-rocketing rental rates.

There are several advantages to the PPV. First, by capturing the efficiencies and economies of scale realized by the private sector, units can be constructed and renovated

more quickly than the traditional, legislatively laden MILCON process. Second, unit designs are modeled after the prevailing styles of the surrounding area, often providing more personally desirable housing. Third, by constructing housing communities, the Navy maintains the ability to offer military community integrity to its sailors. This is often desirable from a security standpoint, both in terms of physical security and emotional security for deploying sailors that leave their families behind. Lastly, the government is able to maintain some control in PPVs. These are generally in the form of pre-determined rental control rates and government occupancy clauses (CNA, CRM 97-27, April 1997).

The PPV is not without disadvantages, however. Loan guarantees are expensive. They must be backed by DoD dollars, thereby reducing available funds for Fleet modernization and other military requirements. Additionally, the government normally provides contractual guarantees of occupancy rates which are ultimately paid using housing allowance dollars. "Guaranteed" occupancy rates of 75 percent or greater are common. If the Navy can not produce occupants within a specified timeframe (usually 30 days), then contractors are afforded the opportunity of renting the units to private sector individuals. To the extent that housing areas contain sizeable portions of private sector occupants, the notion of a military community is diminished.

Guaranteed occupancy rates often extend over decades, making the construction projects fully amortizable, a necessary precursor to project profitability for private sector investors. This factor limits the government's flexibility and control in changing housing strategy.

To ensure rental rate ceilings, the government must often provide subsidies to contractors or military members. These come in the form of direct payments to contractors to fill the delta between fixed rental rates and the prevailing market rate, or additional allowances to military families occupying PPV units (i.e., the Differential Lease Payment Program). If market rates steadily increase in certain areas, the government can potentially find itself having to pay more than anticipated for military housing (CNA, CRM 97-25, April 1997).

The PPV also faces considerable legal and political hurdles. While not as encumbered as the traditional MILCON process, local politicians and federal acquisition regulations limit flexibility and responsiveness to requests for PPV implementation. Furthermore, Congress, despite approving and encouraging the use of PPVs has recently instructed DoD to slow down its implementation of PPVs. Congress may perceive widespread implementation of PPVs as threatening to its constituents' "bread and butter" MILCON projects.

The Navy has implemented three PPV test programs located in Everett, WA, Corpus Christi, TX, and San Diego, CA. The San Diego project, for example, is beginning to solicit proposals from private contractors, three and a half years after decision approval to study and (possibly) implement a PPV in that area (Naval Facilities Engineering Command Director, 1999). These types of delays appear routine and exemplify how the housing problem worsens over time.

Another disadvantage to PPVs is the likelihood of unit quality deterioration over time. When private owners of PPV units are faced with rental rate and occupancy guarantees, they have little incentive to adequately maintain and modernize their housing

units. In completely private housing communities, for example, contractors that fail to adequately maintain and modernize their properties find themselves subject to market forces, i.e., potential occupants vote with their feet.

C. COMPLETE PRIVATIZATION OF HOUSING

An alternative to the PPV is the complete privatization of all military housing. DoD would remove itself from the housing business altogether allowing the private sector to respond to the demand. The apparent advantages appear compelling, yet there are also substantial disadvantages

Complete privatization would remove current MILCON financial obligations producing an estimated \$300 million per year in savings (CNA, CRM 97-25, April 1997). According to CNA, The Navy currently spends (in terms of MILCON and opportunity costs foregone) approximately \$15,100 per year to house the average military family in government owned and maintained units; \$13,100 of that comes from the Navy's budget. The other \$2,000 comes from the Department of Education's School Impact Aid fund. To house sailors off base, the Navy spends an average of \$8,100 per year per family through Basic Allowances for Housing (BAH); \$7,900 of that comes from the Navy budget, and the remaining \$200 comes from the School Impact Aid fund (CNA, CRM 97-25, April 1997). In summary, it cost the Navy more to house members on, rather than off-base.

An additional advantage of complete privatization is that the government would remove itself from competition with the private sector housing market, which is also a key goal of the Office of Management and Budget (OMB) A-76 Circular, e.g., outsource all non-governmental functions. Additionally, privatization would allow all sailors to

choose the quality and location of their living quarters commensurate with other U.S. citizens working for the federal government or private firms. This option is not available under the current system of government assigned housing.

A disadvantage to complete privatization is that the military would lose control of housing. Installation commanders could no longer control where military members live, creating potential proximity and community integrity issues. There is also the possibility of increased rental market rates. Basic Allowance for Housing (BAH) levels that were once adequate may become insufficient for some military families, forcing them to relocate to substandard housing. There is also the additional financial burden of incidental expenses, such as utilities, that are currently provided free-of-charge to members occupying government housing.

One disadvantage of privatization is the perception that it may violate a Quality of Life (QoL) contract between the military and service members. It is common knowledge that some sailors take comfort in not having to personally locate and obtain housing for their families. The government has always provided this service. The added time and financial burden of sailors having to manage their own housing arrangements could add to the erosion of the QoL and benefits package. Lastly, some military locations are so remote and economically undesirable that the private housing market will fail to provide housing, i.e., there are notable exceptions to the privatizing alternative.

D. CHAPTER SUMMARY

The current system of MILCON provided housing is apparently unable to solve the considerable housing problem facing the U.S. military. Evidently, no one has the time (30-40 years) or the funding (\$20B) to expeditiously solve the problem. There are

alternatives. The questions revolve around the merits and impediments of the various alternatives, including the political will to execute timely solutions. Loans and occupancy and rental rate contractual guarantees may be more costly than anticipated. From a completely economic standpoint, privatization of all military housing makes sense, but there are substantial barriers: political and legal; loss of control concerns; and erosion of benefits to name a few.

This thesis examines each of these elements in further detail, and draws a conclusion supporting privatization as the "best" alternative for solving the housing crisis. Chapter II provides a literary background to military housing and basic descriptions of the alternatives. Chapter III provides a more detailed description of the housing problem, and Chapters IV and V analyze the two main alternatives, Public Private Venture (PPV) and complete privatization, respectively. Chapter VI ends with conclusions and recommendations.

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II. BACKGROUND

A. CURRENT MILITARY HOUSING PROBLEM

The Navy's current supply of military housing is inadequate, both in terms of quantity and quality. A Congressional testimony by the Secretary of Defense (1998) indicates that 200,000 military family housing units are old, not adequately maintained and need to be renovated or replaced.

Using traditional Military Construction (MILCON) funding, DoD estimates that it will cost \$20 billion to repair or replace current military housing. Furthermore, it is estimated that it will take 30-40 years to complete the task (GAO, NSIAD-98-178, 1998).

The Navy maintains ownership of approximately 60,000 of DoD's housing units. And while 75 percent of military members live in non-governmentally owned housing, many fleet concentration areas are experiencing long waiting lists for sailors wishing to occupy government quarters. The current waiting list for San Diego, for example, is comprised of 6600 (up from 5000 in 1997) families and an 18 month average wait time (Fuentes, 1999).

Realizing the urgency of fixing this housing problem, as it directly impacts quality of life, Congress is seeking alternatives to the traditional processes of construction and modernization through MILCON and has authorized a series of five-year, test pilot initiatives (GAO, NSIAD-98-178, 1998). Aimed at utilizing the efficiency of the private sector housing market, the DoD plan offers several non-traditional alternatives. They include the provision of direct loan guarantees to private contractors to construct or modernize housing, and the conveyance or leasing of existing DoD property and/or

facilities to the private sector. The goal of these initiatives is to remedy the current housing dilemma in ten years, vice the projected 30-40 year timeframe, given traditional MILCON procedures.

B. MILITARY CONSTRUCTION (MILCON)

Despite the DoD housing policy of the 1990s, which recognizes the local community as the principal source of housing for military families (Desbrow, 1998), MILCON remains the primary means by which DoD builds military housing. Historically, the need for MILCON-provided housing is a result of the surrounding community's inability to meet the military housing requirements for the area (Van Oss, 1990). The market's failure to adequately provide housing, in these cases, is generally attributed to the communities' inability to meet DoD guidelines for price, size and location (Desbrow, 1998).

Once a determination has been made of inadequate private sector provision of housing, a MILCON project request must be generated. In accordance with the Planning, Programming and Budgeting System (PPBS), such requests must be incorporated into the requesting service's Program Objective Memorandum (POM). As any given POM incorporates the upcoming fiscal year, as well as the following six years, there exists inherent uncertainty as to the year of funding approval and authorization, if at all. A MILCON project, therefore, will generally not provide actual housing units, available for occupancy, for a period of four to ten years after the date of initial POM submission (Van Oss, 1990).

C. ALTERNATIVE SOLUTION ONE – PUBLIC PRIVATE VENTURE (PPV)

Governmental and privately contracted analysis have revealed two prominent alternatives to mitigate the housing problem: Public Private Venture (PPV) and the complete privatization of all military housing.

The PPV is essentially a partnership with private sector contractors. Through complete private sector financing (the most ideal scenario) or government loan guarantees, contractors are encouraged to construct, renovate and maintain military housing stocks. This either takes place on privately obtained and held real estate or governmentally leased, existing housing land. The government usually incorporates “right of first refusal” to military members in PPV communities, preserving its ability to fill occupancies with military members, vice private sector occupants, with occupancy guarantee rates. Also incorporated are rental rate guarantees, which place rent ceilings on the units. These guarantees, incorporated into the construction contracts, ensure that military members (who pay the rent themselves out of housing allowances), are not subjected to sky-rocketing rental rates.

There are several advantages to the PPV. First, by capturing the efficiencies and economies of scale realized by the private sector, units can be constructed and renovated much more quickly than the traditional, legislatively laden MILCON process. Second, unit designs are modeled after the prevailing styles of the surrounding area, often providing more personally desirable housing. Third, by constructing housing communities, the Navy maintains the ability to offer military community integrity to its sailors. This is often desirable from a security standpoint, both in terms of physical security and emotional security for deploying sailors that must leave their families behind. Lastly, the

government is able to maintain some control in PPVs. These are generally in the form of pre-determined rental control rates and government occupancy clauses.

The PPV is not without disadvantages, however. Loan guarantees cost a lot of money. They must be backed by DoD dollars and thereby preclude the spending of this money on other departmental objectives (i.e., fleet modernization). Additionally, the government must usually provide contractual guarantees of occupancy rates and, hence, housing allowance dollars. "Guaranteed" occupancy rates of 75 percent or greater are common (Commander, Navy Region Southwest, 1999). And, when the Navy cannot produce occupants within a specified timeframe (usually 30 days), contractors are afforded the opportunity of renting the units to private sector individuals. This, alone, has the potential to undermine the goal of preserving a military community integrity (CNA, CRM 97-27, April 1997).

These guarantees often extend over decades, as this makes the construction projects fully amortizable, a necessary precursor to project profitability for private sector investors. This factor also limits the government's flexibility and control in changing housing strategy.

To ensure rental rate ceilings, the government must often provide subsidies to contractors or military members. These come in the form of direct payments to contractors, to fill the delta between fixed rental rates and the prevailing market rate, or additional allowances to military families occupying PPV units (i.e., the Differential Lease Payment Program (DLP)). If market rates steadily increase in certain areas, the government may potentially find itself having to pay more than anticipated for military housing (CNA, CRM 97-25, April 1997).

The PPV also faces considerable legal and political hurdles. While not as encumbered as the traditional MILCON process, local politicians and federal acquisition regulations limit flexibility and responsiveness to requests for PPV implementation. Furthermore, Congress, despite approving and encouraging the use of PPVs, has recently instructed DoD to slow down its implementation of PPVs (Commander, Navy Region Southwest, 1999). The reasons for this decision are unclear, but speculation is that Congress perceives widespread implementation of PPVs as a threat to its constituents' "bread and butter," MILCON projects.

The Navy has implemented three PPV test programs located in Everett, WA, Corpus Christi, TX, and San Diego, CA. The San Diego project, for example, is just now beginning to solicit proposals from private contractors, three and one half years after decision approval to study and possibly implement a PPV in that area (Director, Naval Facilities Engineering Command, San Diego, 1999)!

Another disadvantage to PPVs is the likelihood of unit quality deterioration over time. Private owners of PPV units, when faced with rental rate and occupancy guarantees, have little incentive to adequately maintain and modernize their housing units. In completely private housing communities, for example, contractors that fail to adequately maintain and modernize their properties find themselves without occupants. People move to more desirable housing communities.

D. ALTERNATIVE SOLUTION TWO – COMPLETE PRIVATIZATION

An alternative to the PPV is the complete privatization of all military housing. DoD would remove itself from the housing business altogether, allowing the private sector to fully meet demand.

The advantages to this program are several. First, it would remove current MILCON financial obligations, producing an estimated \$300 million/year savings (CNA, CRM 97-25, April 1997). The Navy currently spends (in terms of MILCON and opportunity costs foregone) \$15,100/year to house the average military family in government owned and maintained units. \$13,100 of that spending comes directly from the Navy's budget. The other \$2,000 comes from the Department of Education's School Impact Aid fund. To house sailors off-base, the Navy spends an average of \$8,100/year on the average family through Basic Allowances for Housing (BAH). \$7,900 of that money comes directly from the Navy budget, and the remaining \$200 comes from the School Impact Aid fund.

An additional advantage of complete privatization is that the government would remove itself from competition with the private sector housing market, a goal of the OMB A-76 Circular.

Lastly, sailors would be allowed to freely choose the quality and location of their desired housing, an option not available under the current system of governmentally assigned housing.

There are disadvantages to complete privatization, however. The military would lose control of housing, for example. Installation commanders could no longer control where military members live, creating potential proximity and community integrity issues. There is also the possibility of increased rental market rates. BAH levels that were once adequate may possibly become insufficient for some military families, forcing them to relocate to substandard housing. This does not take into account the additional financial burden of incidental expenses, such as utilities, that are currently provided free-

of-charge to members occupying government housing. There is also the perceived violation of the entire quality of life package. Many sailors take comfort in not having to personally locate and obtain housing for their families. The government has always DoNe it for them. The added time and financial burden of sailors having to do this on their own has the potential to further erode the perceived benefits package. Lastly, some military locations are so remote and economically undesirable that the private housing market will fail to provide housing. What will military members do in these cases?

The government, given the above economic considerations, would most likely have to increase housing allowances to its military members. The projected MILCON savings, given complete privatization, should be adequate to accomplish this event.

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III. DESCRIPTION OF THE HOUSING PROBLEM

A. INTRODUCTION

This chapter describes the context of the housing problem (i.e., political, economic, societal, and historical factors). It also discusses mandates, mission and current strategies for dealing with quantitative and qualitative housing shortfalls.

B. POLITICAL, SOCIETAL AND HISTORICAL FACTORS

To better understand the housing problem, certain environmental or contextual factors are discussed. Although some of these factors are external to the housing problem, they are relevant for understanding how different political, economic and societal forces can influence the housing problem and solutions.

1. Political

The decisions determining the quantity and quality of military housing have political origins and ramifications. All housing development and construction projects, with the exception of minor renovations below \$500,000, must be Congressionally approved and funded through the Military Construction (MILCON) appropriation. An annual appropriation, MILCON dictates approval of housing development, construction or renovation (in excess of \$500,000) by granting budget authority. Desired projects are considered for approval by means of service Program Objective Memoranda (POM) requests submitted through the Secretary of Defense (OSD) as part of the Planning, Programming and Budgeting System (PPBS) (Schick, 1995).

The MILCON appropriation process often reflects Congressional self interest, which may override military concerns for efficiency, cost-effectiveness and quality of

life. The appropriation allows Congress to distribute housing construction projects based more on geographic and constituency concerns vice specific service needs. This attribute has historically fostered parochial interests vice the prioritized planning and development requests of the individual services (Wildavsky, 1997).

There also exists the potential of political pressure from within the individual services. While Service Chiefs promulgate doctrine and policy on their services' military housing goals and objectives, these may conflict with the goals of major claimants or regional commanders. Some geographic regions, for example, face greater housing challenges (i.e., meeting demand and improving quality) than other areas. This is often true in high cost-of-living fleet concentration areas such as San Diego (Commander, Navy Region Southwest, 1999). These areas subsequently face the simultaneous challenges of greater housing needs, imposed fiscal constraints and high housing costs. Regional goals, therefore, have the potential of conflicting with service policy, doctrine and local conditions, thereby generating political friction.

2. Economic

Meeting the economic needs to repair (to a level of comparable contemporary standards) and replace existing housing to meet the quantity and quality demanded is costly. Additional units must be constructed to meet housing demands, and renovations performed to upgrade housing standards. For example, in 1996 RAND calculated the average age of the military housing stock at 33 years. The Department of Defense (DoD) testified before Congress in March 1998 that replacing and/or upgrading existing family housing, through traditional military construction financing (MILCON), would cost over \$20 billion and could take 30-40 years (GAO, NSIAD-98-178, 1998).

3. Social

Societal factors, such as the expectations of military members to live in military housing, have a bearing on the housing problem. In other words, military families for generations have moved from base to base and have grown accustomed to the familiarity of moving into a military neighborhood. This custom is part of the "social" contract between the military and its members.

Other societal expectations and benefits can influence the housing issue, such as: the acculturation of junior military personnel, family support when members deploy, military neighbors and fostering military values (RAND, MR-1020-OSD, 1999). As service members place high or low values on these societal benefits, demand for housing would rise or fall accordingly. Quality of Life (QoL) surveys reveal that approximately 60 percent of families surveyed cite sound economic decision, given a minimum quality of housing, as their primary reason for electing military housing. Approximately 25 percent of families additionally cite increased security, proximity to work and immediate availability as their reasons for electing military housing (RAND, MR-1020-OSD, 1999).

Additionally, communities surrounding military housing areas generate their own societal input influencing housing decisions. Some areas welcome the addition of military housing communities and families, because they increase the area's economic base (Commander, Navy Region Southwest, 1999). Some areas would not desire separate military housing, particularly if the units were in disrepair. The point is that certain societal influences, be they internal or external to the military, would need to be considered when crafting solutions to the housing problem.

4. Historical

Prior to 1984, all construction and renovation of military housing was accomplished by means of MILCON funding. In 1984, however, Congress passed the Military Construction Authorization Act, Section 801. This allowed the federal government to enter into Public Private Ventures (PPV) with private developers. Service secretaries, by terms of the authorization act, were authorized to enter into leasing projects for a period of up to 20 years. The leases were renewable only when the projects were undertaken on privately owned land parcels. Federally owned land was not subject to lease renewal.

Developers, under Section 801 provision, are responsible for all development and construction costs. Housing rents would be directly paid by the government, who would not grant housing allowances to service members occupying the leased units. Service members would, therefore, live "rent free" in the units, similar to the existing structure under traditional MILCON-provided military housing units.

C. MANDATES, MISSION AND CURRENT STRATEGY

1. Mandates

Through collaboration with Congress, as reflected in the legislative mandates discussed below, DoD was given legal authority to adopt housing policies intended to capture the economic efficiencies of the private sector. The premise behind the legislation is for the military to utilize the private sector's extensive investment capital base as well as housing construction expertise and efficiency. Through the provision of the legislative incentives, such as loan guarantees or the use of federal land, the military

hopes to entice the private sector to build or renovate military or unaccompanied housing utilizing private investment funds.

By utilizing private sector investment capital, DoD hopes to reduce near-term outlays for housing acquisition or construction by spreading costs over many years. This is as opposed to having to fully fund construction projects in the year of their approval, as is the case with traditional MILCON-funded housing projects under score keeping.

In addition to Section 801, the "Build-to-Lease" Program of the 1984 Military Construction Authorization Act, the Act also contained several other provisions. These additional provisions provided further alternatives, marking system direction for the economically efficient and timely provision of military housing.

a. Section 802 "Rental Guarantee Program"

Similar to Section 801, Section 802 increased flexibility within the 1984 Military Construction Authorization Act. Section 802's first additional provision is that it increased the maximum length for which lease programs could be enacted between the government and the private sector. Rather than the previous limit of 20 years for maximum lease length, under Section 801, Section 802 extended the lease length limit to 25 years. Under a 25-year lease, however, the government is legally unable to renew the lease, unlike the 20-year lease programs, which were renewable when leases were entered on non federally-owned land parcels. Both Sections, 801 and 802, forbid the renewal of leases on federally owned land.

Additionally, under Section 802, government lease agreements guaranteed an occupancy rate of no less than 97 percent for the life of the contract. Housing rents would be directly paid by service members to the private contractors and would be

predominately comprised of the service members' BAH funding. Rental rates, in accordance with lease terms, would be set at the prevailing market rate and were, resultantly, subject to market fluctuations (Van Oss, 1990).

b. Federal Credit Reform Act of 1990

With the passage of the Federal Credit Reform Act of 1990, federal agencies are required to "score" housing leasing agreements. Scoring mandates the full obligation of budget authority, equal to the full cost of projects, prior to the initial approval of contracts. Housing development and construction projects, therefore, must be fully funded (obligated) prior to breaking ground on any development or construction projects. So, rather than amortizing construction and development costs over the life of the actual construction project, program costs must be fully amortized in the year of implementation. Given the high dollar value of construction projects, this legislation made full costs immediately visible within any single budget year. When faced with such large costs, DoD must decide between military housing and development vice funding the development and acquisition of major weapon systems, also subject to scoring under the Federal Credit Reform Act of 1990. As weapon systems, historically, have a tendency to be deemed core competencies, housing, in the face of scoring, is often relegated to lower priority status. Services, in essence, chose "not to afford" the large up-front obligation of funds for construction projects but, rather, chose major weapon systems acquisitions and developments (Desbrow, 1998).

c. Title 10, "2667 Lease" Program

Title 10, U.S. Code Section 2667 contains significant differences from Sections 1 and 2. First, under Section 2667, construction is mandated by local building

codes, not DoD specifications. Local construction codes have a propensity to be less restrictive than DoD specifications. This has the potential to reduce the costs associated with developing and implementing construction projects. Additionally, under this provision, construction projects are not subjected to the Davis-Bacon Wage Act, which mandates federal wage standards set by the Department of Labor. Instead, contractors are free to pay the local prevailing wage rates for their labor. This, too, has the potential to reduce project construction costs (Van Oss, 1990).

Another key provision within Section 2667 is the ability of the services to use non-excess federal land for housing construction sites. This affords greater flexibility in the choice of proposed construction project sites.

Lastly, Section 2667 sets lease requirements to a minimum of five years. More importantly, however, it removes statutory limits on the maximum length of lease contracts. This affords more flexibility to military decision makers in evaluating the potential long term benefits of lease proposals. Moreover, it creates a security incentive for developers by guaranteeing longer lease terms, making projects more profitable in the long run (Bielek, 1999).

Section 2667 has not been used extensively by DoD since its enactment into legislation. It has met with success, however, with the Sun Bay Apartment and Resort complex on the site of the former Fort Ord, CA (Van Oss, 1990).

d. Title 10, U.S. Code Sections 2871-2885

Realizing some of the inability of Section 801, 802 and 2667 to rectify the military housing situation, DoD petitioned Congress for additional legislation to afford more housing opportunities. As a result, Congress passed the Military Family Housing

Revitalization Act of 1996 as part of the National Defense Authorization Act of 1996.

The provisions of this act became Title 10, U.S. Code Sections 2871-2885. The legislative authority provided within the act was limited to five years. During this "test period," DoD was required to monitor and analyze all new programs undertaken in accordance with the new act, in an effort to judge new programs' effectiveness in dealing with the military family housing problem (GAO, NSIAD-98-178, 1998).

The specific provisions of the relevant Title 10 sections are listed below:

1. Direct Loans: The Department of Defense (DoD) may make direct loans to persons in the private sector to provide funds for the acquisition or construction of housing units suitable for use as military family or unaccompanied housing (10 U.S.C. 2873(a), (1)).
2. Loan Guarantees: DoD may guarantee a loan to any person in the private sector if the proceeds of the loan are used to acquire or construct housing units suitable for use as military family housing or unaccompanied housing (10 U.S.C. 2873(b)).
3. Build or Lease: DoD may enter into contracts for the lease of military family or unaccompanied housing units to be constructed under the initiative (10 U.S.C. 2874).
4. Investments in nongovernmental entities: DoD may take investments in nongovernmental entities carrying out projects for the acquisition or construction of housing units suitable for use as military family or unaccompanied housing. An investment under this section may include a limited partnership interest, a purchase of bonds or other debt instruments, or any combination of such forms of investment (10 U.S.C. 2875(a), (b)).
5. Rental guarantees: DoD may enter into agreement with private persons that acquire or construct military family or unaccompanied housing units under the initiative to guarantee specified occupancy levels or to guarantee specific rental income levels (10 U.S.C. 2876).
6. Differential lease payments: Pursuant to an agreement to lease military family or unaccompanied housing to servicemembers, DoD may pay the lessor an amount in addition to the rental payments made by military occupants to encourage the lessor to make the housing affordable to military members (10 U.S.C. 2877).

7. Conveyance or lease of existing property and facilities: DoD may convey or lease property or facilities, including ancillary support facilities to private persons for the purposes of using the proceeds to carry out activities under the initiative (10 U.S.C. 2878).
8. Interim leases: Pending completion of a project under the initiative, DoD may provide for the interim lease of completed units. The term of the lease may not extend beyond the project's completion date (10 U.S.C. 2879).
9. Conformity with similar local housing units: DoD will ensure that the room patterns and floor areas of military family and unaccompanied housing units acquired or constructed under the initiative are generally comparable to the room patterns and floor areas of similar housing units in the locality concerned. Space limitations by paygrade on military family housing units provided in other legislation will not apply to housing acquired under the initiative (10 U.S.C. 2880(a), (b)).
10. Ancillary supporting facilities: Any project for the acquisition or construction of military family or unaccompanied housing units under the initiative may include the acquisition or construction of ancillary supporting facilities for the housing (10 U.S.C. 2881).
11. Assignment of members of the armed forces to housing units: DoD may assign servicemembers to housing units acquired or constructed under the initiative (10 U.S.C. 2882).
12. Lease payments through pay allotments: DoD may require servicemembers who lease housing acquired or constructed under the initiative to make lease payments by allotment from their pay (10 U.S.C. 2882(c)). (GAO, NSIAD-98-178, 1998)

2. Mission

Part of the mission of the restructuring of housing allowances from the Basic Allowance for Quarters (BAQ) and Variable Housing Allowance (VHA) to the Basic Allowance for Housing (BAH) is to bring out-of-pocket expenses back down to the 15 percent mandate. Through the utilization of the BAH framework and, more importantly, the aforementioned legislative reforms, DoD hopes to redistribute financial savings to

members receiving BAH, bringing out-of-pocket expenses down to 18.8 percent in 2000 and 15.8 percent in 2003 (Garamone, 1999).

Despite aggressive goals and DoD's active pursuit of implementing the new initiatives, however, GAO has concluded that actual progress has been slow. DoD attributes the slow pace to the need to familiarize itself with a new way of doing business. Specifically, DoD maintains that new legal, financial, management, contractual and budgetary scoring issues have to be addressed and resolved. DoD has revised its estimated timeframe to rectify the housing problem from 10 to 14 years (GAO, NSIAD-98-178, 1998).

GAO further asserts the DoD is lacking a "standardized methodology for comparing life-cycle costs of proposed privatization projects with military construction alternatives" (GAO, NSIAD-98-178, 1998). There appears to be no overall strategy to effectively employ the initiatives.

3. Strategy

The current strategy for housing military families consists of two components (CNA, CRM 97-27, April 1997). The first component is the provision of military owned and operated housing. It is located on or near military installations and is provided free of charge to qualifying families. This component is entirely funded through the use of MILCON funds. The second component consists entirely of monetary allowances provided to service members. Families use these allowances, which differ by military rank, dependent status and duty location, to rent or purchase civilian housing in communities surrounding military installations.

Monetary allowances for housing, by law, are designated to provide only 85 percent (as a minimum) of civilian housing costs, leaving the remaining 15 percent to be borne as out-of-pocket expenses by military families occupying civilian housing. Government owned and maintained housing, on the other hand, is funded 100 percent, leaving no out-of-pocket expenses to be borne by service members and their families (RAND, MR-1020-OSD, 1999).

Historical data indicate that the disparity in out-of-pocket expenses borne by the service members occupying civilian housing is even larger. Data indicate that service members bear, on average, 20 percent of housing costs out-of-pocket, rather than the stated policy of 15 percent (CNA, CRM 97-25, April 1997). This is attributed to budgetary constraints, not expensive housing preferences on the parts of service members occupying civilian housing (RAND, MR-1020-OSD, 1999).

According to CNA, any strategy for shifting military housing to private sector provision, in whole or part, must accomplish two things. First, it must raise housing allowances to a level adequate to compensate service members for the loss of "free" (zero out-of-pocket expenses) base housing. Second, it must shift resources (i.e., funds for operation and maintenance, MILCON, revitalization, and revenues from the sale or lease of current assets) from current family housing to fund increased housing allowances (CNA, CRM-97-25, April 1997).

DoD has stated its intended strategy as the integration, over time, of the privatization program with other elements of its current housing program. DoD stated, however, that it would not focus its full attention to the complete integration until it has demonstrated success with elements of the privatization initiative. DoD hopes to

demonstrate success through financial savings and quality of life improvements as a result of one of its fifteen test pilot privatization programs (GAO, NSIAD-98-178, 1998).

DoD's goal is to have the private sector invest at least \$3 in military housing construction for every dollar that it spends. By doing this, DoD officials have publicly stated that they anticipate rectifying the military housing dilemma within ten years, as opposed to the projected 30-40 year timeframe associated with traditional MILCON methods (GAO, NSIAD-98-178, 1998).

DoD believes that further efficiency can be obtained through the private sector's use of commercial specifications and standards, as well as local building codes (GAO, NSIAD-98-178, 1998). This is as opposed to the use of DoD standards and guidelines, a requirement under traditional MILCON, which tend to be more strict. Local contractors, accustomed to local codes and specifications, find themselves unequipped to be in compliance with the DoD standards and subsequently often fail to bid on government construction projects. By allowing contractors to comply with local standards, DoD hopes that more contractors will bid on projects, thereby reducing costs through competition (GAO, NSIAD-98-178, 1998).

D. CHAPTER SUMMARY

This chapter describes the housing problem in terms of political, economic and societal factors and how they influence the housing problem and solutions. It specifically addresses the environment and context in which military housing construction exists, and how this environment shapes direction. The legislative authority recently granted to DoD, as outlined in the chapter, provides numerous opportunities to serve as key success

factors. Overall system direction on how to strategically implement these factors (mandates) appears to be lacking, however, according to GAO.

Chapters IV and V will focus on the most widely-studied, forerunning alternatives to repairing and replacing military housing, the Public Private Venture (PPV) and complete privatization of military housing.

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IV. THE PUBLIC PRIVATE VENTURE (PPV)

This chapter analyzes the components, variations, advantages and disadvantages of the Public Private Venture (PPV). Generalized studies conducted by the Center for Naval Analyses (CNA), as well as proposal audits conducted by the General Accounting Office (GAO) will be evaluated. Lastly, a brief analysis of San Diego's current PPV project proposal will be evaluated.

A. BACKGROUND

Prior to the 1996 Defense Authorization Act DoD was confined to two basic ways of providing housing benefits to military service members and their families. The first was the direct provision of military-owned housing, which was provided "rent free" and was usually on a military base. The second alternative was to provide housing allowances to service members. As of 1997, DoD owned and operated military housing for approximately one third of its service members (CNA, CRM 97-27, April 1997). This ratio is generally an overstatement in the aggregate, with major fleet concentration areas like San Diego, for example, providing owned and operated military housing for approximately one quarter of its service members (Commander, Navy Region Southwest, 1999).

Under the National Performance Review led by Vice President Al Gore and the Office of Management and Budget (OMB) Circular A-76, the policy of saving money by privatizing and outsourcing was formally established. The savings are derived by eliminating some non-governmental functions and outsourcing some functions to a "more efficient" private sector. Another cost saving initiative is emerging: the enactment of

cooperative, cost-cutting, Public Private Ventures (PPVs). These PPVs, as they pertain to the housing of military service members and their families, are heralded as being capable of increasing or enhancing facilities while simultaneously decreasing costs (Desbrow, 1998).

Specifically, the powers afforded the military services through the use of PPVs involve the direct sale or lease of property and/or facilities to the private sector. By capturing the efficiencies of the private sector housing market, the sale or leasing property and facilities, theoretically generate revenue, by means of cost savings.

Private firms, which can supposedly develop and manage the services' resources more efficiently, bid to purchase or lease the assets. When the bid price of these firms exceeds that of the current value of the assets to the military, the assets will be sold or leased. In theory, the most efficient private firm will bid the highest price for the assets, utilizing its own efficiencies to ensure a profit, thereby developing the asset for its most productive use. In economic terms, this is the fundamental premise of free market enterprise (CNA, CRM 97-27, April 1997).

B. 1996 DEFENSE AUTHORIZATION LEGISLATION

The 1996 Defense Authorization Act aligned with the National Performance Review and provided new legislative authority for DoD to enter into contractual agreements with the private sector to provide affordable housing to military members. The new authorities encompassed within the act are commonly referred to as joint Public Private Ventures. They generally involve the use of government assets (land and/or capital) coaligned with private sector firms, who are thereby motivated to construct and maintain affordable housing for military members.

The powers granted to DoD are intentionally broad. This is to encourage the development of creative solutions to economic provision of military housing. The services are not limited to the enactment of only one or all of the provisions. Any suitable combinations may be adopted. The specific legal aspects of Direct Loans and Loan Guarantees, Rental Guarantees, Differential Lease Payments, etc., are listed in Chapter III. Summary descriptions of the specific powers with selected implementation examples as they pertain to PPVs are listed below (CNA, CRM 97-27, April 1997).

1. Legislative Powers

a. Direct Loans and Loan Guarantees

The Services may make direct loans to an individual person or persons (i.e., private firms), with the expressed intent of acquiring or constructing housing units. These units are to be intended for the provision of housing units deemed habitably suitable for military members.

b. Lease of Housing Units

Pertaining to units to be constructed under the new authorities, the services may enter into leases. These leases may be for a specified term and may stipulate that the private owner of the units operate and maintain the units. Furthermore, the establishment of such leases may serve as the basis for private developers to obtain financing to construct such units.

c. Investments

Services may invest in private (i.e., nongovernmental) entities with the expressed intent of acquiring or constructing housing units suitable for military service members. These investments may include, but are not limited to: acquisition of a limited

partnership interest, purchase of stock or other equity instruments, purchase of bonds or other debt instruments, or a combination of investment forms. Cash investments are not to exceed one third of a project's total capital cost. If the investment includes land or facilities, it is not to exceed 45 percent of the total capital cost. All investments must contain a "Collateral Incentive Agreement," stipulating that military service members must be given occupancy preferences for units acquired or constructed under these provisions. The government may agree to guarantee minimum occupancy or rental income levels when entering into agreements.

d. Differential Rent Payments

The services may make additional payments to private lessors in addition to rental payments made by military service member occupants. The purpose of these payments is to maintain rents at affordable levels to military service members while providing economic incentive to private firms. These payments are pre-determined but may be reevaluated on a scheduled basis (i.e., annually or biannually) to reflect prevailing market wages in the surrounding area (Commander, Navy Region Southwest, 1999).

Differential payments may also be made directly to service members rather than to private firms. These Differential Lease Payments are paid by the individual services and are approved on an individual installation basis. The Navy has recently approved the use of Differential Lease Payments for occupants of Country Manor, a PPV at Naval Station Everett, Washington (Kotzen, 1999).

e. Conveyance or Lease of Existing Property and Facilities

The services may convey or lease government property or facilities to a private person or persons. The proceeds of such transactions must be used to carry out

activities (i.e., the acquisition or construction of suitable housing units) under these authorities. Conveyance or lease agreements must, by law, also include a preference for military service members and their families.

f. Ancillary Support Facilities

In addition to housing, other projects may be undertaken to provide ancillary support to military housing (e.g., child care, day care and community centers, housing offices, dining and other similar facilities.

g. Assignment of Service Members to Housing Units

Services may assign service members to housing acquired or constructed under these authorizations. If the government does not own or directly lease the units, service members retain their eligibility for Basic Allowance for Housing (BAH). Services may require personnel leasing housing under these provisions to have rental payments directly deducted from their pay in the form of allotments (CNA, CRM 97-27, April 1997).

2. Analysis of the PPV

The legislative powers recently afforded to DoD are relatively broad. These powers are discussed and interpreted below.

a. Subsidies

The Services have two main goals related to PPVs: increase the quality of housing offered to service members and capture the economic efficiencies of the private housing market. Quality refers to the aspects of construction, location and affordability. In short, DoD wants to make PPVs economically attractive to potential bidders (i.e., profitable endeavors) and avoid some of the potential pitfalls (discussed later in this

chapter) (CNA, CRM 97-27, April 1997). The services are evidently pursuing standard business practices of high quality, low cost and satisfied military customers.

The combination of factors are not always profitable for private sector firms, usually as a result of prevailing market rates. Realizing this, the government enacted the authorizations to afford the services the means to incentivize private firms. The point is to make development and management of housing projects profitable from the perspective of private business partners. The specific powers listed earlier (e.g., loan guarantees) are designed to increase potential profitability for private firms at any given level of risk, or to reduce the level of risk.

All of the subsidies can be converted into an equivalent (usually up front, prior to project commencement) cash payment (contribution) to the private firm. This cash payment is intended to produce the necessary capital for project initiation and to mitigate risk to private firms (CNA, CRM 97-27, April 1997). Subsidies, however, contain their own pitfalls, one of which is rent-controlled projects, described next.

b. Rent-Controlled Projects

The DoD goal of providing affordable housing to service members may also stimulate rent-controlled housing to service members. As part of a PPV, private firms may be contracted to provide housing to service members at guaranteed rental ceilings. Service members can either pay rents directly to landlords in an amount equal to their housing allowance, or pay them by allotment. The intent of the PPV is to provide better quality housing at a lower overall cost to DoD (i.e., its fair market value exceeds that of the individuals' housing allowance but is subsidized by the government, not the service member, to produce economic profitability for the private firm).

The problem with this scenario is that it encourages disinvestment by the private firm. In the competitive, unsubsidized housing market, for example, landlords have the incentive to properly maintain and modernize housing units. Failure to do so results in the degradation of the properties, thereby reducing the rents that individuals are willing to pay to occupy them. With subsidies, private firms have little or no incentive to partake in such modernization and upkeep. They are guaranteed minimum rental levels, a combination of the service members' housing allowances and government subsidies. In an effort to maximize profits, therefore, private firms have the incentive to minimize maintenance and modernization in order to achieve the greatest potential profit on their units. Over time, units will deteriorate in quality, ultimately reaching the point where they become worth only the level of rent paid directly by the service member. Additionally, there will be no incentive to produce higher quality units, as they will be barely profitable or provide zero total profit.

Disinvestment of this type most commonly appears in the form of reduced maintenance and repairs. There are other forms, however. These include hiring less qualified landlords and staff or using inferior maintenance and building supplies. All of these factors can erode the quality of life gains sought by the services when entering into PPV agreements.

The services could specify maintenance requirements in the original contracts to counter the disinvestment effects. These stipulations can be difficult and costly to enforce, however. Controlling the quality of building and maintenance supplies and maintaining contract compliance on qualitative measures can be tricky.

Ideally, service members could be given the full amount of the rent. This would include their housing allowance plus the government subsidy. In the event of disinvestment by the private firm, service members could relocate to housing units better matched (in appearance and quality) to the full level of their rent allowance.

c. Inefficient Resource Allocation

Housing allowances are based on paygrade and marital status and vary by geographic location. Unlike traditional on-base housing, where service members give up varying levels of housing allowances to occupy similar quarters, private sector housing allowances provide varying levels of rental income to private firms. If, under a PPV, private firms receive rents equal to the service member's housing allowance (plus a fixed government subsidy), there exists an incentive for firms to rent units to those service members with the highest housing allowances. Furthermore, private firms will be incentivized to place these individuals in the smallest possible dwelling, as it will maximize their profits. This will favor senior service members, who receive the highest housing allowances, while disfavoring junior members with large families, as their housing allowances are typically much smaller. Long waiting lists will likely develop for junior service members, thereby having a negative impact on the overall goal of providing quality, affordable housing to all service members (CNA, CRM 97-27, April 1997).

3. Barriers to PPV Implementation

Despite the various powers afforded to DoD in the aforementioned legislative authorities, successful implementation of PPVs has been slow. Identification and adoption of proposed PPV projects must undergo intense scrutiny, both military and

Congressional, before any proposals may proceed (GAO, NSIAD-98-178, July 1998).

Some of the reasons for implementation problems are listed below.

a. Cost Benefit Analysis

PPVs are understandably complex. As previously explained, disinvestment incentives run countermand to the services' objectives. In addition to the long-term disinvestment uncertainty, the quantification of true PPV costs has proved to be illusive. Significant monitoring and oversight throughout the life of a contract might be a remedy, however, no known cost benefit analyses were uncovered. Additionally, expensive contract monitoring could conceivably erode the anticipated financial gains of PPV projects. An accurate cost benefit analysis of a proposed PPV is an area requiring additional research and resources.

b. Scoring

...when an agency is authorized to enter into a contract for the purchase, lease-purchase, or lease of a capital asset, budget authority will be scored in the year in which authority is first made available in the amount of the Government's total estimated obligation. (Credit Reform Act of 1990, 2 U.S.C. 661)

This legislation proves problematic for the successful implementation of PPVs because it requires that the total estimated obligation of the government for a PPV occur within the budget year authority of the implementation of the proposed project. Specifically, PPV capital leases and lease purchases are scored when they are signed.

In an era of reduced housing budgets, scoring makes the implementation of PPV projects appear very costly up front. While they may be economically more cost-effective than other housing projects in the long run, it has become a difficult decision to

opt for large, capital-intensive projects when faced with the need to modernize and replace military weapon assets.

c. Navy's Release of Funds

Further compounding the problem (Navy example) is the stymied release of \$30M, held by the Navy's Logistics (N4), earmarked for the Navy's share of 19 PPV "candidate locations." Awaiting guidance from the Assistant Secretary of the Navy, N4 was prohibited from releasing the funds to the PPV candidates. Despite the authority later granted (January 1998), N4 has not released the funds to date. Instead, N4 is trying to determine the best suitable approach to meet the need of fleet CINCS, while adhering to the new guidance from Assistant Secretary of the Navy that PPV projects be adopted regionally in whole-base efforts, and not by singular projects (Desbrow, 1998).

d. Lack of Documented PPV Approval Process

Installation and regional managers are frustrated by the lack of a formalized documented process for seeking approval of PPVs. Unable to successfully analyze and interpret the numerous federal statutes and regulations (as well as individual state statutes), installation and regional legal counsel seek the support of service legal counsels. They, in turn, seek agreement with various civilian agencies but predominately disagree on the interpretations of the statutes involved. The net result is the failure of several PPV proposals, due to the inability to accept legal interpretations (Desbrow, 1998).

4. Negative Potential Results of PPV Implementation

Even if PPVs are able to successfully overcome the obstructions to adoption that have been discussed, there are potential negative results to even successfully-implemented PPVs. These are explained below.

a. Government Subsidies and Loan Guarantees

A government PPV with a loan guarantee or subsidy reduces the interest rate at which a private developer borrows money to finance the project. This creates the net effect of reducing equity stake, and hence financial liability of the private developer. This is especially true as the loan value increases. This creates the potential incentive of lowering the value of the property on the part of the private owner by reducing maintenance and upgrades. When the property value continues to fall as a result of failed upkeep or neglect, a negative equity situation can actually be reached. Once a negative equity situation exists, an owner has no real economic incentive to increase the value of the property through maintenance and upkeep because their "losses" will not increase. The loss difference is instead borne by the government who guaranteed or subsidized the loan. Once in a negative equity situation, a private firm may be incentivized to further neglect the property and obtain all that it can by "milking the property." The firm would continue to collect guaranteed rents as stipulated by the contract's provisions, similar to the Savings & Loan crises of the 1980s (CNA, CRM 97-27, April 1997).

b. Rent and Occupancy Guarantees

As the government seeks to preserve housing rents at affordable levels, it often sets rental guarantee levels. This includes guaranteed occupancy levels, usually stated as a minimum guaranteed occupancy rate and guaranteed rental rates. The intent

is to provide better housing (i.e., quality at or above market rates but a guaranteed rate below the market level to the service members). The intent is also to create an incentive for firms to undertake the projects, as they are guaranteed minimum incomes.

This situation is advantageous when the market level increases, as service members are "locked into" guaranteed rent levels below the prevailing market rate. This is somewhat problematic, however, in that it (again) creates an incentive for the private owner to neglect maintenance and modernization. Why keep the housing at market price quality levels when the guaranteed rent is below that level anyway?

As market rental prices decrease, the situation can deteriorate. Private firms have no incentive to improve the units, for they are now valued above the market wage. Firms are guaranteed rents at the previous level, above the market wage! The incentive is to neglect the property and increase the profitability of each unit, for the rent is guaranteed at a fixed, higher level (CNA, CRM 97-27, April 1997).

5. Potential Side Effects of Successful PPV Implementation

Even if the government is able to successfully overcome the various negative effects of the guarantees associated with PPVs, either by favorable market conditions or contract adjustment clauses, there are other potential problems.

a. Reducing Competition

The essence of competition is that firms enter the market (e.g., housing) when the potential for profits exists. When faced with guaranteed rental incomes (from the aforementioned rental and occupancy guarantees), private firms will bid on the proposed government PPV projects.

Without a guarantee that the government will not continue to increase its number of PPV projects in the same area, private firms may be less inclined to bid on projects. Their fear, understandably, is that an increased number of additional housing units will eventually lower the overall market housing rates. This could affect subsequent PPV projects and lower the "guaranteed rental profits" that they represent. This, in turn, could deter private firms from bidding on subsequent PPV projects. This reduces competition from the PPV housing projects, creating the undesirable scenario of "private industry [refusing] to invest adequately with the expectation that the military will do it" (CNA, CRM 97-27, April 1997).

b. Waiting Lists

If the military is able to successfully implement PPVs to provide high quality units at below market rates, a potential inequity may result. When subsidy levels differ for different projects, individuals will seek to maximize their benefits (i.e., their value of the subsidy). Service members will opt for the best unit (in quality and size) at the greatest subsidy level. The result will be long waiting lists for the most desirable projects. Unless the military can devise an adequate strategy to equitably assign the more and less desirable units, some will receive an inequitable subsidy (CNA, CRM 97-27, April 1997).

This is similar to the perceived subsidies of the different military housing units in major fleet concentration areas. In San Diego, for example, the waiting list for the most desirable military housing units (i.e., the largest, highest quality units) is already 18-24 months long (Commander, Navy Region Southwest, 1999).

C. THE SAN DIEGO PPV PROJECT: AN EXAMPLE

San Diego, California epitomizes the housing dilemma. As of Summer 1999, San Diego military housing is facing several serious problems. There is currently a revitalization backlog (of existing units) at an estimated cost of \$188 million. The replacement backlog of units stands at 812. The projected housing deficit by 2003 is 3,662 units. Approximately 6,000 families are on the waiting list for military housing with wait times averaging 18 months (Assistant Chief of Staff, Housing, San Diego, 1999).

The above problems have led the Navy Region Southwest, the agency responsible for military housing in the San Diego area, to adopt a primary goal: To help more Sailors and Marines obtain housing faster (Commander, Navy Region Southwest, 1999). Realizing that the forecasted timeframes were countermand to the goal of expediency, San Diego started exploring PPV alternatives.

1. Lessons Learned From Everett

San Diego began researching PPVs by examining existing and in-progress PPV programs. The Navy's premier program is located in Everett, Washington. In 1997, the Navy invested \$5.9 M in a limited partnership to develop 185 units on private land. The total development cost of the project is \$18.8 M with a term of 10 years. Beginning in year six of the project, where initial occupancy began in the Fall of 1997, units will be sold at the rate of 20 percent per year. Military families are given preference in the purchase of these units. The rents for these units, prior to sale, are fixed at levels below the prevailing market rate.

The project is deemed successful except for this problem: the rents paid, although fixed at levels below the market rate, exceed the housing allowances of the majority of

the occupants (who must pay all of their BAH to the private owner as rent). To remedy this, the Navy obtained Congressional approval (August 1999) to offer Differential Lease Payments (DLP-see chapter III). Once implemented, these DLPs have eliminated the only apparent drawback to the Everett PPV, and eliminate out-of-pocket housing expenses for some military families.

2. San Diego Draws Upon the Everett Example

Witnessing Everett's success in rapidly meeting their housing demands while providing affordable quality housing to service members, San Diego explored similar PPV considerations.

The Navy Region Southwest identified 2,660 units at 18 housing sites for potential PPV consideration. The 18 sites were selected based upon size (i.e., an average of only 103 units per site). Economic analysis conducted by the Navy Region Southwest indicates that it is more costly on a per unit basis to maintain small sites due to economies of scale. The goal is to execute \$7.1 M of revitalization on existing units, demolish and replace 812 units at one site (Cabrillo Heights) and construct a total of 588 deficit reduction units at two sites (Assistant Chief of Staff, Housing, San Diego, 1999).

3. Acceptability Standards

The Navy Region Southwest, pursuant to its goal of helping more Sailors and Marines obtain housing faster, adopted minimum acceptability standards for proposed PPVs. Any proposal would have to meet all of the acceptability standards. Failure to do so would result in elimination of the project for consideration. The standards, set by Navy Region Southwest executives, include the following:

- Minimize government risk while maximizing the multiplier effect of scarce financial resources.

- Obtain life cycle cost savings.
- Avoid selling land/assets to mitigate the risk of potential PPV failure (which would result in the loss of ownership or use of government land).
- Use high quality, energy efficient designs, materials and construction.
- Ensure adequate unit size for each family.
- Ensure safe housing in close proximity to work.
- Ensure zero out-of-pocket expenses for rents (given normal utility usage):

4. Limitations

The San Diego housing market is historically expensive. Recently, direct home purchases have become very costly, mostly as a result of the housing boom of the 1980s, direct home purchases have become very costly. Plagued with low vacancy rates (1.5 percent), low capitalization rates, long lead times for developable land and a high cost for developable land (an average of \$20K per unit), the regional staff realized the potential shortcoming. Given the aforementioned constraints, it would be unprofitable for private firms to develop existing units or build new units on private land. Only by using existing government land could PPV proposals simultaneously provide private profit incentives while keeping development and maintenance costs low, thereby ensuring low rent levels.

5. Preferred Business Entity

To minimize risk to DoD, obtain Navy housing goals (including the previously listed San Diego Acceptability Standards), and ensure profit incentives for potential business partners, the Navy Region Southwest has adopted a Limited Liability Company (LLC) as the preferred method of PPV proposals.

The LLC is a relatively new type of business entity. Its most attractive features are that it provides the liability protection of a corporation at the taxation of a partnership. Unlike a partnership, a LLC provides liability protection while affording the owners (i.e., the Navy and the private firm) the right to actively participate in the management of the company. LLC owners are called "members" and may consist of individuals, partnerships, trusts, corporations and nonresident aliens. Liability for all members is limited only to the amount of each member's investment in the company. LLCs may also be managed externally, should the members agree. By creation statutes, LLCs generally contain the partnership characteristic of a limited lifespan. The key advantage that this arrangement provides is that in the event of death, bankruptcy, insolvency, mental incapacity or withdrawal of a member from the LLC, the LLC is subjected to a "termination event." The remaining members may decide to reorganize, which is typically tax-free. Lastly, an LLC is usually not permitted to exchange in the "free transferability of ownership interests," meaning that a member may not freely exchange, sell or give his/her ownership interest. Owners may assign rights to LLC income but may not assign voting rights (Greenberg, 1996 & 1997). While a complete legal explanation of LLCs is beyond the scope of this thesis, a few of the more salient features are listed below.

- Easily adaptable to short-term agreements: The intended timeframe for the San Diego PPV is 10-15 years.
- Protection: Provides minimal legal liability of government assets while maintaining ownership rights.
- Input: Affords input decision control for designing and modifying PPVs.

- Flexible: LLCs allow flexible, in-term modifications, and allowing reactionary changes to fluctuations in market conditions.
- Ownership: Ownership distribution is based upon respective contribution (i.e., cash value of assets and improvements, such as dwellings).
- Debt: Private developer secures and guarantees debt.
- Rents: Used to fund operating costs, service debt, create management incentive fees and returns on risk. Residuals (excess) are deposited into a DON operating reserve account used to recapitalize the assets over the long term.
- Collateralize debt: Only restrictive leasehold interest in land and units will collateralize debt (the Navy can not lose land or units in the event of private default on the debt).
- Allocations and Distributions of cash flow: The right to such distributions can not be altered from those described in the agreement.
- Proceeds: Net sale or disposition proceeds remain in the project.
- Management Board: Adoption creates an LLC Management Board, of which the Navy is a primary stakeholder, preserving the Navy's legal ability to influence decisions of the LLC.
- Guarantees: Performance bonds and personal and corporate guarantees provided during project construction.
- Funds: DON funds held by trustee-managed escrow account and agency, ensuring systematic, independent dispersal of funds based upon consulting architect approval.
- Budgets: Short-term rehabilitation and long-term recapitalization based upon DON-approved (prior to adoption) budgets.
- Separation of Responsibility: Debt and property management are kept separate. Preserves the ability to require the property's Managing Member to re-compete property management agreement, thereby theoretically ensuring price competition and minimal quality standards.
- Consent: Expenditures over budget amounts must be approved by DON (Assistant Chief of Staff, Housing, San Diego, 1999).

6. Financial Summary

The final cost breakdown of the proposed San Diego PPV is listed below
(Assistant Chief of Staff, Housing, San Diego, 1999).

First mortgage:	\$130.3M
<u>Government Equity:</u>	<u>\$ 20.9M</u>
Total development cost:	\$151.2M
Leverage achieved:	10.5:1
Life cycle cost savings:	11.1 percent
OMB Scoring:	\$ 20.9M (the government's equity)

7. Summary

With the proposed PPV in San Diego, the region will privatize 2,660 units, demolish and replace 812 units, revitalize 1,260 units and construct 588 new units. This will achieve the replacement backlog of 812 units and reduce the projected 2003 deficit of 3,662 units by 588 at cost of only \$20.9M, rather than the \$188M for the current revitalization backlog.

8. Timeline

Initial research into the San Diego PPV began in June 1997. Congressional notification was given at the end of 1998. Congressional approval is still pending. The Region is behind its proposed deadline of August 3, 1999, to issue a Request for Proposals (RFP) and will likely fail to meet its targeted award date of August 2000 (Commander, Navy Region Southwest, 1999).

San Diego is not alone in its inability to rapidly adopt PPVs. Mired by intense Congressional scrutiny and complicated by a lack of formal adoption procedures, the PPV approval and adoption process is cumbersome. Everett experienced similar delays in the adoption of its successful pilot project. The Naval Facilities Engineering Command (NAVFAC) San Diego, the entity responsible for awarding the final PPV, has stated that it has yet to issue an RFP. NAVFAC further indicates that project award will take 12-18 months, despite focused efforts and planning for more timely implementation (Housing Director, NAVFAC, 1999).

D. CHAPTER SUMMARY

This chapter explored the various components, advantages and disadvantages of the Public Private Venture (PPV). The economic advantages of the PPV may be sound based upon recent legislative changes, however, true cost benefit analyses are lacking. There certainly exists the potential to minimize government financial outlays and mitigate risk while expediently resolving the housing problem. The PPV is not without potential disadvantages, however. Namely, there exists a strong potential for disinvestment and the erosion of quality. While the likelihood of the disadvantages can be decreased, particularly through the use of clauses (those inherent as well as stipulated in PPVs, namely the LLC adopted by San Diego), only time will reveal the existence of potential drawbacks. This makes PPVs still somewhat speculative in nature.

The San Diego LLC (PPV) demonstrates that difficult impediments can be mitigated when working outside the framework of traditional MILCON procedures (i.e., construction and revitalization backlogs and costs). The process is lengthy, however, and requires dedicated resources and personnel.

Chapter V examines an alternative to the status quo (i.e., MILCON) and the PPV, namely, the complete privatization of military housing. This arrangement calls for the divestiture of all government assets and liability, as they pertain to the provision of housing service members.

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V. COMPLETE PRIVATIZATION OF MILITARY HOUSING

A. INTRODUCTION

This chapter examines the components, advantages and disadvantages of complete privatization of military housing, including eliminating financial incentives for occupying military housing. In complete privatization DoD is entirely removed from providing housing and housing maintenance. Instead, DoD would provide housing allowances to all service members and have them obtain housing from the private housing market on or around military installations. While the option of obtaining housing from the private market is currently available to all service members, except of single members below the paygrade of E5, there is still a financial incentive to occupy government housing. This chapter discusses implications of eliminating financial incentives.

B. COST BENEFIT ANALYSIS OF PRIVATE SECTOR PROVISION OF HOUSING

Simply stated, it currently costs the government more to house members in military housing than in private sector housing on a per-family-housed average basis. Reports also indicate that members occupying military housing value the housing at a level less than the true cost borne by the services (CNA, CRM 97-25, April 1997).

1. Cost Analysis

Table 1 compares the costs of housing military members in military housing with private sector housing (CAN, CRM 97-25, April 1997).

Table 1. Comparison of Annual Housing Cost Per Sailor (FY 1996\$)

Source of Government funding	On-base housing cost	Off-base allowance cost
USN budget	\$13, 100	\$7,900
Dept. of Education (school impact aid)	\$2,000	\$ 200
Total Cost to Government	\$15, 100	\$8,100
Contribution per sailor (out-of-pocket expense)	\$ 0	\$2,000
Total housing and utility cost	\$15,100	\$10,100

Source: CNA, CRM 97-25, April 1997).

The above figures reflect economic steady-state, i.e., the amount of budgetary funding required to maintain the housing stock at its current quality level (CNA, CRM 97-25, April 1997).

Table 1 shows that on average, off-base housing costs are less than on-base housing costs. Additionally, the average cost of \$15,100 to house a military family may be understated. The cost figure includes the opportunity costs of the land and dwellings that the service members currently occupy (i.e., their economic value for alternative uses).

Not counting the out-of-pocket expenses borne by the service members occupying the quarters, the services are paying a "premium" of \$7,000 to house each member in military housing (\$15,100-\$8,100).

The Navy, for example, operates approximately 60,000 family housing units. This equates to a total annual "premium" of approximately \$420M ($\$7,000 \times 60,000$). Of this total, \$310M comes directly from the Navy's budget and approximately \$120M comes from the Department of Education through School Impact Aid.

If the Navy were to eliminate the military housing option, it could increase allowances to all of its service members by approximately \$1,250 annually. This would entail transferring currently housed members to an allowance status at the comparable paygrade level for those not occupying government quarters) by \$1,250 annually. This increase in allowances would reduce out-of-pocket expenses from the current 19.8 percent to approximately 7 percent (CNA, CRM 97-25, April 1997). This is consistent with the Secretary of Defense goal of reducing out-of-pocket expenses for all military service members, and would even exceed his targeted reduction to 15.8 percent by 2003 (Garamone, 1999).

Additional savings are also possible. If the Navy were to remove itself from the provision and maintenance of military housing, it could reprogram the MILCON dollars currently obligated for these functions. Furthermore, some of the existing housing assets (i.e., land and dwellings) could be sold or leased generating additional revenue. These savings could be further transferred to service members in the form of increased housing allowances, eventually eliminating out-of-pocket housing expenses. This would eliminate or greatly reduce the economic incentive of military members to occupy military housing.

2. Benefit Analysis

Despite annual expenditures by the Navy of \$15,100 per family for military housing, surveys indicate that the majority of military (Navy, in this example) families value base housing benefits below their actual cost of provision. For example, a 1995 Variable Housing Allowance Survey asked, "If military housing had been available when you reported to this duty station, would you have elected to live in government housing instead of private sector housing?" Center for Naval Analyses computed family housing preferences by paygrade. As paygrade increased (particularly in the enlisted ranks who receive smaller base pay and housing allowances), preference for military housing decreased. At the E9 level for example, less than one third of respondents indicated that they prefer military housing. At the E6 level, 48 percent expressed a preference for military housing. CNA postulated that if offered \$10,650 (E6 allowance level with zero out-of-pocket expenses), most families would choose private housing. This figure was used to estimate an upper-value of on-base housing for most service members. While admitting that \$10,650 might not be enough to entice all families to select private housing, extrapolation from CNA's trended data indicates that at that value, the preference for on-base housing reaches a "significant minority" (CNA, CRM 97-25, April 1997). This preference for private housing would likely increase as allowances increase above the \$10,650 upper value while still remaining below the average current cost of \$13,100 (Navy example).

A commonly accepted benefit of on-base housing is improved Quality of Life, such as the social benefit of housing fellow service members as neighbors. Other benefits include proximity to work, (particularly if housing is located on-base), increased

security, and support for deployed service members. While surveys indicate that these benefits do exist, a 1996 study conducted by RAND's National Defense Research Institute (NRDI) indicates that "military members are drawn to the economy of on-base living and not by other features of military housing." The study further concludes that, on the margin, increasing housing allowances would "be a bargain" to DoD compared to the higher costs of housing families in military housing.

The overall conclusions of the 1996 RAND study present three findings. First, military families "value" military housing more than the current value of their housing allowances. Second, the strong demand for military housing is a direct result of the perceived economic "benefit gap" in occupying military housing. And third, service members do not view the additional, non-economic benefits of occupying military housing as critical.

Two independent studies have therefore concluded that the primary consideration when service members opt for military housing is predominately economic (CNA, CRM 97-25, April 1997 and RAND NDRI, 1996).

3. Cost-Benefit Comparison

As long as service members are experiencing out-of-pocket expenses, any increase in housing allowance provides a true, dollar-for-dollar increase in welfare, as housing allowances are tax free.

Utilizing expected values, the CNA study compared the costs of providing housing for the Navy to the benefit derived (using the upper end conservative estimate of \$10,650 from the survey). Currently, approximately 25 percent of Navy families occupy military housing. The other 75 percent receive allowances. Given the assumption that

the assignment of housing is perfectly fair (i.e., one could continue to expect to be able to occupy military housing for an average 25 percent of career time), the expected value of the current housing benefit to sailors is \$8,590 annually.

This figure is far below the Navy's current annual cost of \$13,100 to provide military housing. This affords the opportunity to not only realize savings by removing itself from the housing provision business but also by reprogramming the Navy's current MILCON budgetary dollars and selling or leasing its land and dwelling assets (CNA, CRM 97-25, April 1997).

C. POTENTIAL PROBLEMS WITH COMPLETE PRIVATIZATION

While the studies discussed above provide empirical support for the financial advantages of complete privatization, various disadvantages warrant discussion, such as potential cultural and economic concerns, as well as circumstances when private markets may not provide economically sound solutions.

1. Cultural Concerns

Service members may suffer hardship when forced to personally secure housing in the private sector. The likelihood of this potential hardship can be mitigated, however. Bases can continue to maintain Housing Offices. The offices' focus would have to shift to strictly referrals, however. Current referral services (i.e., surrounding apartments and houses for rent or sale, information on schools and other community entities, etc.) could be expanded to meet the increased need that would arise if all members were relegated to securing private housing. Comment files could be maintained, based upon previous service members' complaints and comments, regarding surrounding housing success or

failures. And the military could even increase mediation and arbitration services in the event of landlord-tenant complaints (CNA, CRM 97-25, April 1997).

The other major cultural concern is the assimilation of young enlisted. Realizing the cultural impact of new service members transitioning to military life, DoD has often touted shared living (i.e., having military neighbors) as beneficial to acculturation. The surveys previously cited indicate that this concern is not strongly shared by junior level service members. Furthermore, the majority of Navy family housing allowances are devoted to E5 and E6 paygrades, not junior personnel. A 1997 CNA study indicates that approximately 90 percent of Navy family housing can be privatized without affecting acculturation of paygrades E1-E3.

2. Economic Concerns

Some military leaders evidently doubt the private housing market's capacity to provide additional housing (Commander, Navy Region Southwest, 1999). The concern is that the private market is too slow to respond to increased demand (i.e., if all service members were housed in the private sector). In other words, fundamental shifts in supply and demand would cause the rents on existing dwellings to skyrocket, adversely impacting service members on fixed allowances.

a. Responsiveness of the Private Housing Market

The continental United States private sector housing market currently provides approximately 100M residences. Additions to this market increase at an annual rate of approximately 1.4M units. According to CNA (1997), populations shift around the country, the private sector housing market tends to respond to changing levels of supply and demand, although time delays do occur. Given the overall numbers, the most

likely outcome would be that the private housing market would adjust to accommodate an additional 60,000 families, the approximate number of military members currently residing in military housing (CNA, CRM 97-25, April 1997).

b. Price Effects

Potential price effects (i.e., rental increases) resulting from the complete privatization of military housing can be viewed in terms of short and long-term effects.

In the short term (i.e., if all military housing were quickly privatized), there likely would be no immediate effect on local rent increases. Ownership of military housing units would change, but the overall total number of units would remain fairly constant in the short term (CNA, CRM 97-25, April 1997).

Concerning the long term effects on prices, CNA considered the example of the overnight transition to complete private housing by estimating the effects on local rents in 53 Navy housing markets. The study utilized supply and demand elasticities from existing literature. In only two housing markets, Whidbey Island and Washington D.C./Dahlgren, Virginia, rents were projected to increase by more than 10 percent in the long run. The overall median increase, for all markets, was estimated at approximately 1/10 of one percent (CNA, CRM 97-25, April 1997).

Robert Topel and Sherwin Rosen estimated in the *Journal of Political Economy* 96 that the transition from the short to long term would occur predominately within one year and completely within three years.

3. Market Conditions and DoD Intervention

Even though the private market is responsive to supply and demand, DoD may still have to intervene to guarantee the availability of housing at affordable prices.

a. Monopoly

Monopoly in the private housing market occurs when only one jurisdiction surrounds a military installation. This jurisdiction may intentionally raise rents by restricting new development. Most often these restrictions come in the form of refusal to issue new construction permits or charging excessively high taxes and fees on new residences.

While this outcome, were it to come to fruition, could be legally challenged in the courts, the military retains another potential alternative. DoD could build or threaten to build housing units on its own land. While a complete Cost-Benefit study would need to precede this decision, the action or threat of action may cause reconsideration on the part of the local jurisdiction, as DoD's efforts would impact the profitability of private firms. Meaningful community relations programs also have the potential to mitigate the monopoly circumstance.

b. Monopsony

Monopsony is a situation where one buyer (i.e., DoD) seeks the products or services of several sellers (i.e., private housing market firms). This situation is realized when the military is the predominant employer in the local area. The potential drawbacks to monopsony are basically twofold. First, if private developers fear that the military may leave an area, then they may not provide quality affordable housing.

A second concern is that the military may decide to intervene in the housing market by building its own housing units in an effort to intentionally drive down rents.

The remedy to both potential problems is trustworthy communication.

The private sector currently provides an adequate quantity of housing in "one-company towns" throughout the nation. While these companies also face the possibility of going out of business (or relocating), the private housing market still appears to provide adequate affordable housing. The military must endeavor to constantly keep the surrounding community apprised of DoD's intentions. Unless additional rounds of Base Realignment and Closure (BRAC) are authorized, installations do not close or move on their accord. If bases are ever considered for closure or relocation, DoD must make every effort to keep the potentially affected communities informed as early as possible. As for the fear of DoD intervening by building its own housing units, bases must work closely and openly with surrounding communities to ensure that it does not intend to undermine the private sector economics of capitalism.

The monopsony case will most likely only ever happen in cases where the military maintains bases and personnel in remote locations. With the closure of the base at Adak, Alaska, however, these locations are currently scarce to non-existent and represent very few military personnel.

c. Underutilized Resources

The situation of underutilized resources occurs when DoD maintains ownership of significant portions of land suitable for building housing within the local community. If the price of private land in the community is excessively high, there might exist a financial incentive for DoD to build and maintain housing on its existing, relatively less expensive land.

The mitigation to this problem is twofold. First, DoD must once again, engage in truthful and timely discussions with the surrounding community, announcing intentions and proposing possible alternatives. Second, DoD may sell or lease the land to private developers with stipulating provisions (a direct result of the 1996 Defense Authorization Act). (CNA, CRM 97-25, April 1997).

D. CHAPTER SUMMARY

This chapter presents an analysis of the components, advantages and disadvantages of complete privatization of military housing. The economic evidence to support complete privatization is strong. By removing itself from the construction and maintenance of housing, DoD can realize savings substantial enough to increase housing allowances to all service members to a level that erodes or eliminates the current economic benefit of occupying military housing. Not only is this solution more cost effective in the long term (compared to the MILCON status quo), it rectifies the military's problems of facing cost-prohibitive construction and maintenance backlogs that will currently take decades to resolve.

While there are potential market conditions that may necessitate DoD's intervention in the housing market, these cases are highly unlikely, occur with negligible frequency, affect few service members and have the potential to be solved by DoD-community cooperation.

Chapter VI will focus on the conclusions and recommendations of this thesis.

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VI. CONCLUSIONS AND RECOMMENDATIONS

This study examined the current provisions of military housing and two major alternatives, e.g., military construction (MILCON), and Public Private Venture (PPV) and complete privatization respectively. The purpose of the study was to consider these three different alternatives for solving the substantial housing problems facing the Department of Defense and its service members, i.e., insufficient quantity and quality of housing. The objective was to determine the most cost-effective alternative, cognizant of political implications of changing housing construction and maintenance policy.

A. MILCON

1. Conclusion

Rooted in tradition and legislative precedence, MILCON has evolved as the "status quo" in the provision of military housing. MILCON applies specifically to the housing that is owned, constructed and maintained by the government. It is provided "rent free" to eligible service members who elect to reside in military vice private sector housing, e.g., approximately 25 percent of service members. Service members choosing to reside in private sector housing (75 percent) are afforded housing allowances which vary depending upon geographic location and paygrade.

Given military budgetary decreases over the past decade, MILCON has fallen markedly behind in terms of its ability to provide timely construction and maintenance upgrades of military housing. The Secretary of Defense has testified that it will take 30-40 years and at least \$20B to remedy the current military housing problems of inadequate quantity and quality to meet demand. Exacerbating the problem is the persistent trend in

reduced DoD budgetary funding levels. Even if funding levels increased, this study concludes that the MILCON process as is, would still be unable to respond and rectify the problem. In summary, the housing construction and upgrade situation is so far behind, and so ingrained in "pork barrel" politics, that more transformative change is necessary to expeditiously solve the housing problem.

2. Recommendations

Terminate as soon as practical MILCON appropriations to construct, modernize and maintain military housing.

Reliance on traditional MILCON to solve a worsening housing quantity and quality problem is unrealistic. Terminating the MILCON process and replacing it with a better alternative would initially go against standard practice. Data from this study and other sources nonetheless point to this conclusion and recommendation. There is one area where MILCON continues to make sense – provision of military housing in remote locations (i.e., where private sector provision of housing is not feasible for economic and logistic reasons).

B. THE PUBLIC PRIVATE VENTURE (PPV)

1. Conclusion

With the passage of the 1996 Defense Authorization Act, DoD was given several legislative alternatives to the provision and maintenance of military housing under MILCON. These alternatives were discussed in Chapter IV and include: Direct Loans and Loan Guarantees; the Leasing of Housing Units; Differential Lease Payments (DLP); and the Conveyance or Leasing of Existing Property and Facilities.

The goal of the new legislative authorities is to capitalize on the private sector economic efficiencies in the provision of housing. Motivated by the lure of economic profits, private firms are enticed to enter the military housing market. Collaborating with DoD in joint Public Private Ventures (PPVs), private firms are subsidized (either in the provision of land, assets or capital) to make military housing projects profitable and worthy of investment risk. Participating firms are responsible for developing, providing and maintaining housing units while still guaranteeing availability for military service members. In return, DoD promises the participating private firms minimum occupancy and rental thresholds.

The overall effect of the PPV is to leverage DoD financial risk, and shift more of the burden (liability) to the private sector. This is advantageous, because it allows DoD the opportunity to "provide" housing to its service members at a fraction of the traditional MILCON costs.

The PPV has faults, however. In an effort to spur interest (i.e., create the lure of economic profits), DoD must often enter into long-term contractual agreements with private firms. These contracts, often lasting 20 years or more, guarantee minimum levels of occupancy and rental revenue. Given the uncertainty of housing market price fluctuations, there exists the potential for negative equity situations to evolve, further exacerbating the disinvestment incentive inherent to rental guarantees. DoD may potentially be faced with rising housing costs, as guarantees fail to accurately reflect prevailing market prices. If private firms fail to adequately modernize and maintain the units (a reasonable scenario), then DoD may fail to economically provide military housing, including a continuation of quality problems.

While it is possible to stipulate maintenance and price adjustment agreements in PPV contracts, these stipulations are costly to enforce and are subject to extreme long-term forecasting.

2. Recommendation

Collect and Analyze data on current (ongoing) PPV pilot projects primarily in terms of cost efficiencies and customer satisfaction.

Despite the potential drawbacks to PPV, it appears more cost effective and efficient than MILCON. DoD is currently undertaking approximately 20 pilot PPV projects. These projects are in various stages of completion and should provide sufficient data to determine the long-term practicality and cost savings of PPV. Unfortunately, it may take several years to collect and analyze PPV data, while housing shortfalls continue to materialize.

Legal obstacles to the implementation of PPVs have proven to be considerable. Pilot projects are routinely delayed throughout their various stages as legal uncertainties and a lack of formalized procedures are encountered. The San Diego PPV project proposal, three years old and not yet ready to solicit private proposals, is an example of the magnitude of legal impediments. **A subsidiary recommendation is for DoD and/or DoN to develop and publish guidelines and lessons learned, including streamlining legal restrictions.**

C. COMPLETE PRIVATIZATION OF MILITARY HOUSING

1. Conclusion

The complete privatization of military housing represents a total divestiture of all government-owned land and assets related to military housing. Divestment may include

the outright sale of these assets or their leasing. Both, however, require relinquishing all titles and grant deeds. Commensurate with a fundamental premise of the free market economy, the then private assets would be built and maintained based on the economic and quality demands of military and civilian customers.

There already exists a robust private housing market. In fact, approximately 75 percent of military service members currently reside in private sector housing. Service members residing in private sector housing are paid housing allowances, which vary depending on the service member's paygrade and duty station geographic location. A 1997 Center for Naval Analyses study indicated that if Navy housing were to "disappear," substantial savings would result from the Navy not having to provide, maintain and manage housing. In fact, CNA estimated that the savings would be large enough to pay housing allowances to those currently residing in military housing, and to raise the allowance levels for all service members. Additionally, as discussed in Chapter V, the higher allowances would have the added benefit of eliminating the financial incentive to reside in military housing. As housing allowances are tax-free, each dollar increase in housing allowance represents a true, one-for-one dollar benefit increase in the financial welfare of service members.

On a contrary note, complete privatization of military housing contains risks. Some installation commanders and others have indicated that service members would perceive a loss of benefits from the absence of military housing. This loss could be manifested in several areas: having to find housing without military assistance; loss of security of military neighborhoods; and loss of the support structure that military neighborhoods afford to the dependents of deployed service members. It is noteworthy

that a 1999 Evaluation of Housing Options for Military Families, conducted by RAND found that these types of concerns may be minimal. In other words, adaptation by young service members and their families to a complete private sector model may be accomplished easier than anticipated. In fact, 60 percent of members surveyed in the study cited economic advantage as their primary reason for electing military housing. If housing allowances were increased in the absence of military housing, then this economic incentive would be replaced with the increased allowances, i.e., effect on benefits derived would be negligible.

Perhaps the main obstacle to the complete privatization of military housing is a perceived loss of control. Installation commanders would not be able to ensure that their service members were located close to work, thereby affecting timely recall during military emergencies. Of course, with 75 percent of service members currently residing outside the confines of military installations, this concern only affects the remaining 25 percent living on base. The largest contributor to the perceived loss of control appears to come in the form of Congressional oversight afforded by the politically-laden MILCON procedure. In short, Congress uses MILCON as a tool for influencing spending within specific districts. In other words, equity concerns could override efficiency concerns. If the goal of military housing and housing allowances is to provide the best quality housing at the lowest possible cost, then privatization is a markedly superior alternative to MILCON.

2. Recommendation

Research political and practical implications of privatizing all military housing and privatize as soon as practical.

Conclusions indicate that the savings achieved by turning all military housing over to the private sector are substantial enough to increase housing allowances to all service members, and to expeditiously solve the housing problem, possibly in under 10 years.

In summary, complete privatization of military housing contains several strong advantages: fast construction of hundreds/thousands of units; customer-influenced quality and maintenance; enough savings to increase housing allowances for all members; and additional savings for fleet modernization.

D. AREAS OF FURTHER RESEARCH

While there currently exist some studies calling for the privatization of military housing, namely the Navy example conducted by CNA, there is no definitive study pertaining to all of DoD. Such a study should be undertaken at the Office of the Secretary of Defense (OSD) level. Considering the level of the annual MILCON appropriations and the need to achieve defense budget savings, the task should receive priority. In the long run, the benefits could be substantial. In addition to saving defense dollars, service members could realize increased economic benefits and an improved quality of life.

The existing PPV project proposals must be further studied as well. This will take time, as the projects are relatively new and ongoing. Discerning and promulgating even preliminary results and lessons learned could better inform emerging policy decisions.

E. FINAL THOUGHTS

The two popular alternatives to the MILCON provision of military housing, the PPV and the complete privatization of military housing, represent both incremental and dramatic departures from current thought. The military is both resistant to change and able to affect change on a large scale. If the overarching goal is to revive the military housing infrastructure to fit the changing requirements of a new Service, then senior leadership must respond to the challenge by setting a clear direction for solving the housing problem.

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